

AMENDMENTS TO THE CLAIMS:

This listing of claims replaces all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A light ~~Light sensor to record the~~ for determining a position of a light source (1), the light sensor comprising:

[[-]] ~~with~~ a photo detector (2), and

[[-]] ~~with~~ a light modulator configured (3) to modulate [[the]] a quantity of light hitting the photo detector based (2) ~~depending on~~ [[the]] an incident angle (α) of the output light [[of]] from the light source (1) ~~on the sensor, wherein the~~ [[-]] ~~whereby~~ light hitting the photo detector sensor from the outside essentially falls on the photo detector (2) without substantial dispersion of the light.

2. (Currently Amended) The light ~~Light sensor according to~~ of claim 1, further comprising which is equipped with a sealing cap, (4).

3. (Currently Amended) The light ~~Light sensor according to one of the claims 1 or 2,~~ of claim 1, further comprising whereby an absorption element (5) is installed in [[the]] a path of at least some rays (101, 102, 103, 104) of the ~~incident~~ light.

4. (Currently Amended) The light ~~Light sensor according to one of the claims 1 to 3,~~
~~whereby~~ of claim 3, wherein the absorption element (5) represents comprises a disk between the
photo detector (2) and the light modulator, (3).

5. (Currently Amended) The light ~~Light sensor according to one of the claims 1 to 4,~~
~~Whereby~~ of claim 1, wherein the light modulator (3) is comprises a transparent block which is
~~provided with~~ having a cavity (6) from [[the]] a side where the light ~~comes in~~ enters the
transparent block.

6. (Currently Amended) The light ~~Light sensor according to~~ of claim 5, wherein
~~whereby~~ the cavity (6) ~~features~~ includes disk-shaped superposed areas, (81, 82, 83) ~~of which~~
~~each contains cone shaped side walls.~~

7. (New) The light sensor of claim 6, wherein the disk-shaped superposed areas
each include cone-shaped side walls.

8. (New) The light sensor of claim 1, wherein the photo detector is configured to
convert at least a portion of the light hitting the photo detector into an electric signal.

9. (New) The light sensor of claim 8, further comprising a switch configured to
determine a position of the light source based on the electric signal.

10. (New) A light sensor, comprising:

a photo detector, and

a light modulator configured to modulate a quantity of light hitting the photo detector, the light modulator comprising a transparent block having a cavity formed in a side where the light enters the transparent block, the cavity including disk-shaped superposed areas having cone-shaped side walls configured to direct the light onto a particular portion of the photo detector based on an incident angle of the light.

11. (New) The light sensor of claim 10, wherein the light hitting the photo detector falls on the photo detector without substantial dispersion of the light..

12. (New) The light sensor of claim 10, wherein the light modulator is configured to modulate the quantity of light hitting the photo detector based on an incident angle (α) of the light.

13. (New) The light sensor of claim 10, further comprising a sealing cap.

14. (New) The light sensor of claim 10, further comprising an absorption element in the path of at least some of the rays of the light.

15. (New) The light sensor of claim 14, wherein the absorption element comprises a disk between the photo detector and the modulator.

16. (New) The light sensor of claim 10, wherein the photodetector is configured to generate an output signal to control an air-conditioning system in a vehicle based on a position and intensity of a light source that provides the light.

17. (New) A system, comprising:

a photodetector configured to:

determine a position of a light source;

determine an intensity of the light source; and

generate an output signal to control an air-conditioning system in a vehicle based on the position and intensity of the light source.